



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



⑪ Publication number:

0 380 351 A3

⑫

## EUROPEAN PATENT APPLICATION

⑬ Application number: 90300818.3

⑮ Int. Cl. 5: H03H 17/04

⑯ Date of filing: 25.01.90

⑭ Priority: 26.01.89 US 301923

⑰ Applicant: RCA LICENSING CORPORATION  
2 Independence Way  
Princeton New Jersey 08540(US)

⑯ Date of publication of application:  
01.08.90 Bulletin 90/31

⑰ Inventor: McNeeley, David Lowell  
7832 Warbler Court  
Indianapolis, Indiana 46256(US)  
Inventor: Fling, Russell Thomas  
1369 Green Trails Drive  
Naperville, Illinois 60540(US)

⑯ Designated Contracting States:  
AT DE ES FR GB IT

⑰ Representative: Smith, Thomas Ian Macdonald  
et al  
London Patent Operation G.E. Technical  
Services Co. Inc. Burdett House 15-16  
Buckingham Street  
London WC2N 6DU(GB)

⑯ Date of deferred publication of the search report:  
27.02.91 Bulletin 91/09

⑯ Adjustable antialias filters.

⑰ A programmable sampled data subsampling system includes a programmable antialias filter which bandlimits the information bandwidth of the signal to be subsampled in accordance with the subsampling rate. The antialias filter includes a recursive filter which scales and combines (304,306,308) input samples and delayed (310) com-

bined samples in proportions of K and (1-K) where K is a variable. The variables K are applied (314,316,318) to the recursive filter in repeating sequences of N values of K where N is the subsampling factor. Every N<sup>th</sup> combined sample is extracted (312,320) and provided as the subsampled signal.

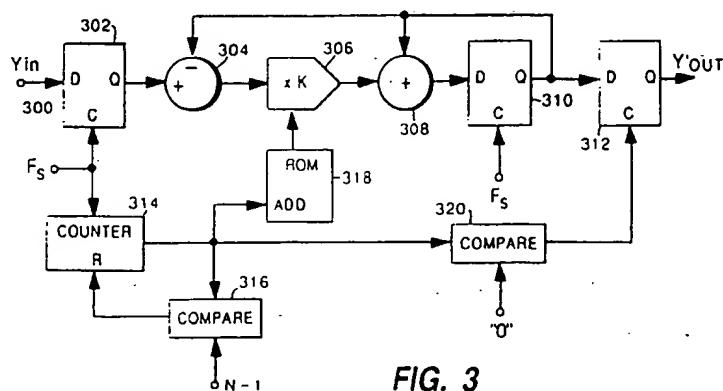


FIG. 3

EP 0 380 351 A3



European  
Patent Office

EUROPEAN SEARCH  
REPORT

Application Number

EP 90 30 0818

DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Category	Citation of document with indication, where appropriate, of relevant passages		
Y	1986 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS, San Jose, California, 5th - 7th May 1986, vol. 1, pages 289-294; K.R. RAO: "Digital filtering in image coding" * Page 289, left-hand column, line 14 - right-hand column, line 21; page 290, left-hand column, line 31 - right-hand column, line 16; page 291, left-hand column, line 9 - right-hand column, line 11; figures 2,8 - - -	1,3	H 03 H 17/04
A	IDEML - - -	2,4,7	
Y	IEEE 32ND INTERNATIONAL SOLID-STATE CIRCUITS CONFERENCE, vol. 28, 13th February 1985, pages 80-81,313, Coral Gables, Florida, US, session VII: "Data converters"; M.W. HAUSER et al.: "MOS ADC-filter combination that does not require precision analog components" * Page 80, right-hand column, line 42 - page 81, left-hand column, line 7; figure 4 - - -	1,3	
A	IDEML - - -	4,5	
A	FR-A-2 532 504 (RCA CORP.)(31-08-1983) * Abstract; page 3, lines 10-30; page 7, line 20 - page 8, line 33; figures 1,3 - - - -	1,2,4,7,8	<b>TECHNICAL FIELDS SEARCHED (Int. Cl.5)</b> H 03 H H 04 N
The present search report has been drawn up for all claims			
Place of search	Date of completion of search	Examiner	
The Hague	22 November 90	WRIGHT J.P.	
CATEGORY OF CITED DOCUMENTS			
X: particularly relevant if taken alone		E: earlier patent document, but published on, or after the filing date	
Y: particularly relevant if combined with another document of the same category		D: document cited in the application	
A: technological background		L: document cited for other reasons	
O: non-written disclosure			
P: Intermediate document			
T: theory or principle underlying the invention		G: member of the same patent family, corresponding document	